

REMARKS/ARGUMENTS

Reconsideration is respectfully requested of the Official Action of October 2, 2008, relating to the above-identified application. A request for a three-month extension of time together with the associated fee is filed herewith.

The claims in the application are Claims 1 to 14. New Claims 12 to 14 are directed to further aspects of the present invention. The basis for the features of Claim 12 are found in the application in Paragraph 0062 of the published application.

The feature of the variable F (circle) of below 0.5 in new Claim 13 is found in para. [0068]. The subject matter of new Claim 14 is based on the disclosure in para. [0069].

No new matter has been presented in the new claims.

The rejection of Claims 1 to 11 under 35 U.S.C. § 103(a) in view of *Mitchnick, et al.*, U.S. patent 5,486,631, taken with *Ettlinger, et al.*, U.S. patent 6,022,404, and further in view of *Anderson, et al.*, U.S. patent 6,521,668, is traversed and reconsideration is respectfully requested. The following comments apply also to new Claims 12 to 14.

The present invention relates to surface modified zinc oxides characterized by a BET surface area of $18 \pm 5 \text{ m}^2/\text{g}$ with a carbon content of 0.5 to 1.0 weight percent. The surface modified zinc oxides have been modified by one or more of the organosilane compounds defined in Claim 2. The process of making the surface modified zinc oxides is set forth in Claims 3 to 6.

In another feature of the present invention, there is provided cosmetic preparations defined in Claims 7 and 8 and sunscreen compositions defined in Claims 9, 10 and 11.

Applicants respectfully submit that the combination of references does not create *prima facie* obviousness of the claimed invention.

The principal reference relied on by the Examiner, *Mitchnick* '631, discloses silicon polymers for the modification of zinc oxide in order to render the zinc oxide hydrophobic. The *Mitchnick* patent was acknowledged by applicants in the present application; see para. [0049]. Applicants have also explained that the known process described in the prior art for hydrophobizing zinc oxide and the resultant prior art hydrophobic zinc oxide show the disadvantage that the hydrophobizing agent produces a polymerized cover on the surface of the zinc oxide; see para. [0050].

Thus, the present invention proceeds from the knowledge of the principal reference and represents an advance directed to the goal of overcoming the disadvantages of the *Mitchnick* invention.

The organosilanes defined in the claims in the present application are different from the silicon compositions which are used to treat the zinc oxide in accordance with *Mitchnick*. They are not the same and the *Mitchnick* patent has no disclosure or suggestion within the four corners of the document as to the organosilanes that are defined in the present application which are used for the modification and surface treatment of applicants' zinc oxides.

The *Ettlinger* patent also assigned to the same assignee of the present invention relates to surface modified pyrogenically produced mixed oxides containing two or more components of the series silica, alumina, titania, and the like as listed in the Abstract. Organosilanes are used for the modification as described by *Ettlinger*.

Recognizing the deficiencies of the *Mitchnick* patent, the Official Action seeks to show that *Ettlinger* recognizes the combination of parameters as set forth in Claim 1 that the BET surface area should be within the range of $18 \pm 5 \text{ m}^2/\text{g}$ with a carbon content of 0.5 to 1.0 weight

percent. The Official Action points to Table 3 in col. 7 of the *Ettlinger* patent. The only example in Table 3 of a product coming within the range of the BET surface area as defined applicants' Claim 1 is example 24, VT748 which has a BET surface area in m^2/g of 23. However, it should be noted that the carbon content of this sample is 3.9% which is significantly outside the range of the carbon content defined in Claim 1 of 0.5 to 1.0 weight percent. It is clear that *Ettlinger* does not show a surface modified zinc oxide coming within the range defined in Claim 1. Consequently, even if the teaching from *Ettlinger* were to be combined with that of *Mitchnick*, the resultant combination would not arrive at applicants' invention.

Applicants respectfully submit that the combination of *Mitchnick* and *Ettlinger* do not create *prima facie* obviousness of Claim 1.

The *Anderson* patent is representative of the prior art directed to cosmetic compositions and while it discloses conventional ingredients for cosmetic compositions including sunscreens, there is no teaching in the reference of utilizing a surface modified zinc oxide defined in accordance with the present invention for incorporation sunscreens or other cosmetics.

Consequently, applicants' respectfully submit that the combined teachings of the three references would not arrive at applicants' invention because of the lack of a disclosure of a surface modified zinc oxide having a BET surface area of $18 \pm 5 \text{ m}^2/\text{g}$ and a carbon content of 0.5 to 1.0 weight percent.

To establish a *prima facie* obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine

reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure, *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification. *In re Linter*, 458 F.2d 1013, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916837 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

A statement that the modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* obviousness without

some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ 2d, 1300 (Bd. Pat. App. & Int. 1993).

In view of the foregoing, applicants' respectfully submit that the references do not create *prima facie* obviousness of the claimed invention and, therefore, respectfully request that the rejection be withdrawn and that the claims be allowed.

Respectfully submitted,

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